

## **APPENDIX 5: Health Protocols**

### **Opportunistic Health Monitoring**

Whenever birds are captured for transmitter changes, relocation, or evaluation of a health problem by Wisconsin personnel, the following health monitoring should be included:

- Physical examination (including weight, molt condition, auscultation, oral examination and collection of any ectoparasites found)
- Blood collection for complete blood count, hemoparasite screen, blood lead, serum zinc, chemistry profile, serology (Newcastle disease, avian influenza, West Nile virus, eastern equine encephalitis, infectious bursal disease), and serum banking
- Collect fresh feces for *Salmonella* culture, fecal smear for acid fast staining, and for parasite evaluation (wet mount, flotation), banking remainder frozen and in dichromate

### **Medical Records**

The DNR Wildlife Health Laboratory collates and manages data on any birds sampled in Wisconsin. All health related observations made at recaptures and after release should be forwarded to DNR in a timely manner. All health related data collected by any member of WCEP should be forwarded to ICF for inclusion in the WCEP health database, which can then be forwarded to other veterinary team members as needed.

### **Treatment**

All efforts will be made to maintain cranes requiring treatment at the Necedah Annex treatment facility or temporary pen structure in WI and FL respectively, or other facility designated by the Health Team. *The goal is to re-release healthy individuals as soon as possible back to the wild, avoiding lengthy rehabilitation that may compromise behavioral avoidance of humans.*

Behavioral and physical criteria will be assessed by project personnel in order to ensure the greatest probability of success of the release. The development of a condition that precludes any type of release may also occur in a project bird. The following are various dispositions that may apply to free-ranging cranes requiring medical treatment.

- Release at an approved site appropriate to the annual cycle.
- Placement with an approved zoological institution for display purposes or at one of the smaller breeding centers. The Whooping Crane Health Advisory Team will assess the risk to resident whooping crane flocks on a case-by-case basis. This option may apply to permanently disabled and other non-releasable project birds (e.g., behavioral problems) that have been exposed to wild habitat. Arrangements for standard quarantine and health evaluation will be made with the receiving institution. In Wisconsin, maintenance of these individuals would occur at the Necedah Annex holding/hospital facility, or at the Milwaukee County Zoo. Elsewhere, a bird would be maintained with help from the Tracking Team and/or local cooperator at a site approved by the Health Team.

- Euthanasia. This option will apply to seriously injured or diseased cranes with limited expectation of survival.

The WCEP Health Team along with core team leaders will provide a formal recommendation to the Project Direction Team and WC Recovery Team as the need arises for outcomes other than a wild release.

### **Evaluation of Predation-Related Mortalities**

USDA-Animal Plant Health Inspection Service-Wildlife Services (WS) is available to assist with evaluation of mortality sites and carcasses for evidence of predation. After a mortality is detected (or in some cases when a mortality is suspected), Chip Lovell (WS) may be contacted for assistance (920-324-4514). When possible, entry into the mortality site will be coordinated with the WS field investigator for examination of the undisturbed carcass and site. When a timely response from WS is not feasible the field biologist will photo document the undisturbed carcass and as much of the site as possible and then will remove and preserve the carcass for necropsy following the Dead Crane Data Sheet section of this document. The field biologist will then coordinate a follow-up visit to the mortality site with the WS field investigator as soon as possible after retrieval of the carcass.

No dissection/skinning, etc. will occur in the field. Where possible, USGS National Wildlife Health Center (NWHC) staff will coordinate examination and necropsy of the carcass with the WS field investigator at the NWHC necropsy lab.

Records (including field notes, photos, reports) will be forwarded to ICF for inclusion in the WCEP health database and distribution to partners.